

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA  
OF SOUTH AFRICA.—PART IV.

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FAMILY PSELAPHIDÆ.

FIRST SUPPLEMENT.

WITH PLATE 6 (XVIII.).

THE publication of the Descriptive Catalogue of the South African *Pselaphidæ* in 1888 has encouraged the entomologists in that part of the world to collect these curious beetles, which, owing to their small size, escape the attention of the ordinary collector.

The Catalogue contained 80 species; I now add 26 new ones to this number. The accession is a considerable one. If one takes into consideration the fact that these minute Coleoptera have been collected in some isolated parts only of South Africa, *i.e.*, round Cape Town, Muizenberg, and Stellenbosch by Mr. Péringuey and myself, Port Elizabeth by Dr. Brauns, Uitenhage by Rev. J. A. O'Neil, Salisbury and Frere (Natal) by Mr. G. A. K. Marshall, one is justified in assuming that when they have been looked for methodically and systematically in this part of Africa they will number several hundred.

Many new genera and forms entirely unknown will certainly be discovered, but the material which enables me to publish this First Supplement goes far to corroborate the opinion I have already given, that the south-western part, and more especially the Cape peninsula, has a very distinct fauna, while the western part of the Colony, Natal and Zambesia, are more directly connected with the general African fauna.

This Supplement contains diagnoses of five genera not until now recorded from South Africa; two are entirely new (*Gabata*, *Bryaxonoma*), while three (*Pselaphoxys*, *Sognorus*, and *Centrophthalmus*)

are known to occur in other parts of Africa. *Gabata* has been found at Port Elizabeth; *Bryaxonoma* is from Muizenberg, near Cape Town; *Pselaphoxys*, described at first from Abyssinia, has been met with at Uitenhage, and the species is even identical with the Abyssinian one, *Centrophthalmus*, found on the eastern and western coasts of Africa, and reaching northwards as far as Algeria, is represented by two species—one from Salisbury, Mashunaland, the other from Uitenhage, Cape Colony. *Sognorus*, which is spread on Europe, Asia, and America, and has also one representative on the African West Coast, is represented by one new species found in Uitenhage.

This last-named locality seems to be a connecting point between the South-Western fauna of the Colony and the African one, for there the genus *Trimiodytes*, which is exclusively South African, and the number of species of which seems to be on the increase, occurs together with *Sognorus*; but so far the genus *Raffrayia*, which has now 26 representatives, and *Pselaphocerus* which has 6, both of which are so characteristic of the *Pselaphid* fauna of that part of the world, have not as yet been met there. Port Elizabeth, on the other hand, has 4 species of *Raffrayia*, 1 *Pselaphocerus*, 2 *Trimiodytes*, and 1 *Fustigerodes*, and seems to have more affinity with the distinct fauna of the peninsula.

The division of the South African *Pselaphidæ* in two faunas, although so interesting, is not possible yet, and I do not know that it can ever be a very precise one; there will always be found species which for one reason or other have a very wide area of geographical distribution, and there will always be points where the two faunas will commingle, yet my opinion is that the study of these insects, taken as a whole, will confirm the division in two faunas—one restricted to the South-Western region, and peculiar to it, the other spread on the Northern and Eastern side, and having a close affinity to the general African fauna.

## TRIBE FARONINI.

GEN. FARONIDIUS, Casey,

Catal., p. 47.

FARONIDIUS MONILIS.

Moderately elongate, rufous or testaceous, antennæ and legs testaceous, covered with a rather dense fulvous pubescence; head very

transverse, antennal tubercle short, transverse, strongly sulcate, sulcus extending behind as far as the eyes; antennæ slender, very moniliform, first joint long, cylindrical, second ovate, third small, ovate, fourth to eighth ovate, ninth to tenth globose, eleventh shortly ovate, obtusely and somewhat abruptly acuminate; prothorax transverse, broader than the head, sides very much rounded and hardly sinuate behind the median part, lateral foveæ large, median one small and united by a strong transverse and arcuate sulcus to two minute oblong and oblique foveæ; elytra as in *F. africanus* but a little shorter. Abdomen similar.

Male: Antennæ a little longer, joints fourth to eighth more oblong, ninth to tenth globose, not transverse, eleventh ovate.

Female: Antennæ shorter, joints fourth to eighth short, ovate, ninth to tenth somewhat transverse, eleventh nearly globose. Length 1.30 mm.

This species very closely resembles *F. africanus*, for which I mistook it at first, but the antennal tubercle is shorter and more deeply sulcate, the antennæ are much shorter and much more moniliform; the prothorax is shorter, much more regularly rounded on the sides, which are not really sinuate behind, and hardly narrowed in front, so that the sides are altogether rounded from the front to the base, whilst in *africanus* the prothorax is narrowed in front, strongly rounded in the middle and sinuate towards the base; the basal impression is smaller, the elytra shorter, the colour lighter, and it is of smaller size.

*Hab.* Cape Colony (Cape Town, Newlands).

Much rarer than *F. africanus*.

## TRIBE EUPLECTINI.

GEN. TRIMIODYTES, Raffr.,

Catal., p. 52.

TRIMIODYTES PALUSTRIS, Raffr.,

*Loc. cit.*, p. 52.

When I described this species I had only one example at my disposal; since then I have found again this insect in the same locality. It has no sexual mark whatever on the abdomen, and what I supposed to be the female proves to be the male. The female has the head smaller and more rounded in front, the antennæ are shorter,

joints fourth to eighth slightly transverse, ninth to tenth decidedly transverse, eleventh globose, truncate at base and abruptly acuminate at apex, whilst in the male the fourth to seventh joints are somewhat longer than broad, eight is square, nine to ten are very little transverse, and eleven is ovate.

#### TRIMIODYTES BREVIPENNIS.

Chestnut, shining; antennæ and legs testaceous, pubescence long but very sparse, with some long, erect, and scattered setæ; head about as long as broad, very little narrowed in front, and having two large foveæ and two strong sulci converging in front where they are roundly connected, vertex hardly carinate; antennæ of moderate size, the two basal joints larger, third obconical, fourth to eighth moniliform, as broad as long, ninth not much larger but transverse, tenth larger, transverse, eleventh sub-conical and very acuminate; prothorax very cordate, hardly broader, but longer, than the head, lateral foveæ strong, median one small, transverse sulcus angular in the middle; elytra short, shoulders dentate, two foveæ at the base with the dorsal sulcus well defined and extending to the median part; abdomen longer than the elytra, somewhat larger, and rounded in the middle, attenuate at apex; metasternum convex; last ventral segment large, sub-triangular.

Male: Head as long as broad, hardly attenuate in front, the anterior margin of the frontal part is thick on the sides, somewhat depressed and minutely emarginate in the middle; just under the emargination, on the epistoma, there is a little notch bearing a fovea; elytra a little longer than the prothorax, less attenuate at the base, with the shoulders more quadrate.

Female: Head not quite as long as broad, and a little attenuated in front, the anterior margin of the frontal part is rounded and altogether thick; elytra hardly longer than the prothorax, attenuate at the base, with the shoulders very oblique. Length 1.20–1.40 mm.

This new species is larger than *T. palustris*, and the elytra are of the same colour as the body, the head is smaller, the elytra are broader and shorter; in comparison with *T. setifer* the head is smaller, the foveæ and sulci much deeper, and the transverse sulcus on the front is wanting, the elytra are much shorter and attenuate towards the base, whilst in *T. setifer* the sides are nearly straight.

*Hab.* Cape Colony (Uitenhage).

## TRIMIODYTES GRACILIS.

Elongate, rufous or testaceo-rufous, with the legs and antennæ paler, pubescence short, coarse, and scattered; head large, a little attenuate in front, and having between the eyes two foveæ and two sulci joined and rounded in front; antennæ strong, first joint quadrate, second ovate, both larger than the following ones, third sub-obconic, fourth to eighth moniliform, becoming a little transverse, ninth a little, tenth much larger, both transverse, eleventh large ovate, acuminate; prothorax regularly cordate, longer than broad, lateral foveæ larger than the median one, transverse sulcus faint and angular; elytra with shoulders faintly dentate, dorsal stria shorter than half the length of the elytra; metasternum convex.

Male: Head a little larger than the prothorax, less attenuate in front; eyes large; elytra much longer than broad, sides hardly rounded, not attenuate at the base, shoulders oblique and well defined; last ventral segment faintly depressed; posterior tibiæ gradually thickened towards the apex, their external margin dilated before the tip in a small, rounded lamina. Length 1·10–1·50 mm.

Female: Head a little narrower than the prothorax, more attenuate in front; elytra not much longer than broad, attenuate at the base, without well-defined shoulders; the sides are more rounded. Length 1·10–1·20 mm.

Compared to *T. palustris* this species is much more elongate, the head is comparatively smaller, and the antennæ are more clavate; it is very different from *T. setifer*, owing to the much more elongated shape and the absence of transverse sulcus in the frontal part of the head. It resembles much more *T. brevipennis*, but the sulci of the head are not so deep, and the prothorax and the elytra are longer.

*Hab.* Cape Colony (Port Elizabeth, Uitenhage).

## TRIMIODYTES CEPHALOTES,

Plate XVIII., fig. 23.

Elongate, pale rufous, pubescence short, coarse, and sparse; head large, transverse, abruptly truncate and tri-dentate, tri-fasciculate in front, between the eyes are two small foveæ and two sulci ending in front on each side of the median spine, epistoma provided with a blunt tubercle; eyes large; antennæ elongate and slender, first joint long, sub-obconical, second ovate, both much larger than the following ones, third obconical, fourth to eighth moniliform, fifth and seventh

somewhat larger, ninth larger than the preceding one, little transverse, tenth of the same shape but about twice as large, eleventh ovate, a little elongate and acuminate; prothorax slightly longer but narrower than the head, cordate, lateral foveæ strong, median one smaller, transverse sulcus slender but well defined and angular; elytra longer than broad, shoulders oblique, well marked, dorsal stria strong but stopping before the median part; metasternum convex; last ventral segment hardly impressed transversely. Male. Length 1.30 mm.

This species will be easily and at once distinguished by the shape of the head.

*Hab.* Cape Colony (Port Elizabeth).

GEN. EUPLECTUS, Leach.,

Catal., p. 53.

EUPLECTUS TUBERCULICEPS,

Plate XVIII., figs. 4 and 5.

Elongate, narrow, rufous; elytra, antennæ, and legs a little paler, pubescence very short, scarce and decumbent; head large, flat, little longer than broad, a little attenuate in front, sides oblique, between the eyes posteriorly, are two foveæ not as distant from each other as they are from the eyes, with a very blunt tubercle between them, two sulci slightly arcuate and not connected in front; antennæ slender, club very little distinct, first joint a little elongate, second ovate, both larger than the others, third to tenth moniliform, ninth and tenth a little more transverse and faintly larger, eleventh large, ovate; prothorax longer than broad, hardly longer and broader than the head, more attenuate in front than behind, sides rounded in the middle and posteriorly bi-sinuate but not dentate, lateral foveæ strong, median one smaller, those three foveæ connected by a strong, not much angulated, transverse sulcus, discal fovea strong, sulciform; elytra quadrate, but longer than broad, discoidal sulcus strong, not longer than the third part; fourth dorsal segment larger than the third; metasternum convex; fifth ventral segment shorter than the fourth, sixth of nearly the same size as the fourth, arcuately emarginate, seventh large, triangular, obtuse at the apex with a carina a little arcuate and asymmetric. Male. Length 1.60 mm.

This species differs from all the other African ones by its more slender body, the sculpture of the head, and the absence of a spine on the sides of the prothorax behind the lateral fovea.

*Hab.* Cape Colony (Port Elizabeth).

## GABATA, nov. gen.

This new genus, which belongs to the tribe of the *Euplectini*, is very closely allied to *Euplectus*. A reference to the description of *Euplectus* (Catal., p. 53) will be sufficient to show the differential characters. The head is smaller, and much attenuate in front, which gives it a somewhat triangular facies; the three-jointed antennal club is hardly conspicuous; the last joint of the maxillary palpi is much more elongate and fusiform; the median discoidal groove on the prothorax is wanting; the seventh ventral segment of the abdomen is very different, being small, transverse, and without carina.

With the exception of the different shape of the last joint of the maxillary palpi, which is not a very important character, the much more important difference in the structure of the seventh ventral segment of the male, the differences between this new genus and *Euplectus* consists merely in plastic modifications which might otherwise be considered as purely specific.

In a paper upon the tribe of *Euplectini*, which is being now printed, I have shown that such plastic modifications have a great value, and become generic characters, on account of their constant coincidence with important sexual modifications which are to be found in the seventh ventral segment of the male.

In *Euplectus* and some other genera this seventh segment is large, rhomboidal, and has a longitudinal carina which is nothing else but the indication of a cleavage of this segment, which opens longitudinally on both sides at the middle, to allow the extrusion of the penis; in some other genera, instead of a longitudinal cleavage, it is an operculum, which is lifted to allow the penis to protrude; in other genera this seventh ventral segment is small, more or less transverse, and hinged in such a way as to leave, when opened, between itself and the last dorsal segment, an opening for the extrusion of the penis; such is the form of the seventh ventral segment in this new genus.

I consider such sexual modifications as very important and of generic value, but unfortunately they are to be found in the male only, and it would be impossible for the females to be identified without the adjunction, as generic characters, of those plastic modifications which, by themselves, would not be sufficient to warrant the creation of a new genus.

## GABATA SEMIPUNCTATA,

## Plate XVIII., figs. 6 and 7.

Elongate, chestnut red, antennæ and legs paler, rufous, pubescence fine and short, decumbent and whitish; head coarsely and densely punctate, hardly as broad as the prothorax, much attenuate in front with the sides oblique, a very deep transverse channel separates the frontal part from the head, two deep and oblique sulci make an acute angle whose apex is above the transverse sulcus, and between those sulci the surface of the head is somewhat raised; behind, on the vertex, there is a faint and short longitudinal depression; antennæ short, with the basal joints much larger than the others, the first is square, second briefly ovate, third to eighth moniliform, ninth and tenth a trifle larger and transverse, eleventh much larger and ovate; prothorax finely and sparsely punctate, longer than broad, cordiform, and having three foveæ—two large lateral ones and a much smaller median one—connected by a fine transverse sulcus, and an exceedingly faint longitudinal sulcus disappearing in front; elytra impunctate, longer than broad, a little attenuate at base, with the shoulders rounded and mutic, and having two large grooves at the base and a large dorsal sulcus ending before the median part; abdomen longer than the elytra, the three first dorsal segments equal, fourth larger, first and second a little impressed at the base in the middle; under part of the head coarsely punctate; metasternum a little transverse and convex; second, third, and fourth ventral segments equal, fifth smaller, sixth as long as the fourth, depressed in the middle, with a blunt tubercle in each side on the edge, seventh small, transverse, paler than the others, densely pubescent, and with a faint longitudinal depression; tibiæ a little thickened past the middle. Male. Length 1.60 mm.

The female is not known.

*Hab.* Cape Colony (Port Elizabeth).

## GEN. RAFFRAYIA, Reitter,

Catal., p. 62.

The number of species included in this genus, which seems to be decidedly a South African one, is constantly on the increase. In the previous Catalogue I mentioned 19 species, and to-day 26 are known, which makes it necessary for me to give a remodelled synopsis.



*Synopsis of Species.*

- A<sup>2</sup>. First dorsal segment of the abdomen much larger than the others.
- B<sup>2</sup>. Antennæ slightly clavate, the penultimate joints (more especially the ninth) larger than the intermediate ones .. .. *caviceps*.
- B<sup>1</sup>. Antennæ not clavate, the three penultimate joints (especially the ninth) smaller than the intermediate ones.
- C<sup>2</sup>. Third joint of the antennæ strongly transverse .. .. *deplanata*.
- C<sup>1</sup>. Third joint of the antennæ at least as long or longer than broad, triangular or globose, never transverse.
- D<sup>2</sup>. Longitudinal carina of the head not extending on the frontal part, ending on the vertex.
- E<sup>2</sup>. Longitudinal sulcus of the prothorax generally wanting or exceedingly faint and hardly conspicuous when it exists.
- F<sup>2</sup>. Antennæ short and thick, ninth and tenth joints transverse.
- G<sup>2</sup>. Elytra hardly longer than broad; head rather long, not at all attenuate (male), little attenuate (female); longitudinal sulcus of the prothorax very faint and sometimes wanting *frontalis*.
- G<sup>1</sup>. Elytra longer than broad; head short, much attenuate in front; longitudinal sulcus of the prothorax always entirely wanting .. .. *calcarata*.
- F<sup>1</sup>. Antennæ much more slender, ninth and tenth joints globose, not transverse, or hardly so.
- G<sup>2</sup>. Head large and thick, sides rounded, the sulci shallow, arcuate, the carina on the vertex obsolete and very short *incerta*.
- G<sup>1</sup>. Head smaller, sides oblique, sulci deep, large and oblique, the carina on the vertex long and strong .. .. *variabilis*
- E<sup>1</sup>. Longitudinal sulcus of the prothorax never absent, always very conspicuous.
- F<sup>2</sup>. Prothorax strongly cordiform, as long or nearly as long as broad, longitudinal sulcus not very deep but very conspicuous, transverse one angulate in the middle; shoulders generally attenuated in both sexes.
- G<sup>2</sup>. Antennæ more slender, ninth joint globose, colour generally darker, piceous-brown .. .. *armata*.
- G<sup>1</sup>. Antennæ much thicker, ninth joint transverse, colour ferruginous; sometimes the shoulders are quadrate in both sexes .. .. *nasuta*.
- F<sup>1</sup>. Prothorax very little cordate, broader than long, longitudinal sulcus complete and deep, transverse one straight; shoulders very quadrate in both sexes .. .. *cruciata*.
- D<sup>1</sup>. Longitudinal carina of the head extending from the neck to the frontal part .. .. *sulcatula*.
- A<sup>1</sup>. First dorsal segment of the abdomen not larger than the following ones.
- B<sup>2</sup>. Prothorax variable but never transversely dilated, and broader than the elytra.
- C<sup>2</sup>. Head with two foveæ and two sulci.
- D<sup>2</sup>. Antennæ with the joints (at least the intermediate ones) transverse.

- E<sup>2</sup>. Prothorax with a longitudinal sulcus more or less obsolete and sometimes reduced to an oblong fovea on the anterior part of the base.
- F<sup>2</sup>. Head without any transverse sulcus on the frontal part.
- G<sup>2</sup>. Prothorax transversely ovate, not cordiform .. .. . *laticollis*.
- G<sup>1</sup>. Prothorax cordiform, at least as long as broad.
- H<sup>2</sup>. Longitudinal sulcus deep and well defined, head and prothorax punctate .. .. . *rugosula*.
- H<sup>1</sup>. Longitudinal sulcus more or less interrupted or obsolete; head and prothorax not punctate.
- I<sup>2</sup>. Broad; antennæ with intermediate joints slightly transverse, ninth and tenth nearly quadrate; prothorax amplified on the sides; elytra slightly longer than wide; ferruginous or testaceous .. .. . *majorina*.
- I<sup>1</sup> More slender; antennæ with the intermediate joints and also the ninth and tenth very transverse; prothorax longer, not amplified on the sides; elytra longer than broad; colour generally dark, feet rufous .. .. . *bicolor*.
- F<sup>1</sup>. Head with a deep transverse sulcus on the frontal part, dividing in two the tubercles bearing the antennæ; longitudinal sulcus of the prothorax faint, disappearing in front .. .. . *montana*.
- E<sup>1</sup>. Prothorax without any trace of a longitudinal sulcus, the ante-basal fovea round or absent.
- F<sup>2</sup>. Head without any transverse sulcus on the frontal part.
- G<sup>2</sup>. Broad and convex; prothorax slightly cordate, broader than long; elytra not much longer than wide .. .. . *natalensis*.
- G<sup>1</sup>. Narrow, depressed; prothorax much cordate, longer than broad; elytra much longer than broad.
- H<sup>2</sup>. Larger; head scarcely narrowed in front, sulci deep and very oblique; prothorax sinuose on the sides close to the transverse sulcus .. .. . *pilosella*.
- H<sup>1</sup>. Smaller; head strongly narrowed in front, sulci fine, little arcuated and less distant from each other; prothorax regularly cordate without sinuosity on the sides .. .. . *abdominalis*.
- F<sup>1</sup>. Head with a more or less deep transverse sulcus on the frontal part, dividing in two the tubercles bearing the antennæ.
- G<sup>2</sup>. Head longer than broad, more or less attenuate in front.
- H<sup>2</sup>. Ferruginous or rufous; antennæ compact and rather short; joints third to tenth transverse.
- The three following species are closely allied to each other. It may be found difficult to identify the females, but the males have the following striking characters:—
- I<sup>3</sup>. Head attenuate in front, sides decidedly oblique; prothorax more rounded on the sides and in front, more deeply sinuate behind the middle; male; intermediate trochanters with a basal tooth, posterior ones simple; last ventral segment with a large, oval, longitudinal and deep depression .. .. . *capensis*.
- I<sup>2</sup>. Head little attenuate in front, sides very little oblique; prothorax less rounded on the sides, attenuate in front, and less deeply sinuate behind the middle; male; intermediate

- trochanters with a basal tooth, posterior ones with a small carina; last ventral segment with a large but not deep transverse depression .. .. . *algoensis*.
- I'. Head smaller, not attenuate in front, sides parallel; prothorax similar to that of preceding species; male; intermediate trochanters simple and mutic, posterior ones with a small, cariniform hook; last ventral segment with a smaller, superficial, transverse depression .. .. . *microcephala*.
- H'. Black; antennæ longer and slender, joints third to seventh only slightly transverse, eighth to tenth quadrate .. .. . *obscura*.
- G'. Head as broad as long, large; antennæ little compact, ninth joint quadrate, tenth very little transverse .. .. . *nodosa*.
- D'. Antennæ elongate, joints quadrate or even longer than broad .. .. . *longula*.
- C'. Head with four foveæ and without sulci .. .. . *myrmecophila*.
- B'. Prothorax very transverse, dilated on the sides, and wider than the elytra .. .. . *dilatata*.

RAFFRAYIA FRONTALIS, n. sp.,

Plate XVIII., fig. 3.

Oblong, little convex, chestnut or testaceous, antennæ and legs testaceous, moderately pubescent, the head is variable in both sexes, but the sulcus is always rounded, and the vertex has a short carina; antennæ short and thick, first joint long, somewhat obconical, second globose, third transversely triangular, fourth to seventh much transverse, the fifth is the largest, the eighth—and especially the ninth—much smaller, transverse, tenth larger, less transverse, eleventh shortly ovate, abruptly conical at apex; prothorax cordate, a little broader than the head, sides well rounded and hardly sinuate posteriorly, longitudinal sulcus always extremely slender and sometimes wanting, the transverse one not very strong and a little angular, with the median groove small and the lateral ones a little oblong; elytra sparsely sub-rugose, short, little attenuate at the base, with the shoulders rounded, dorsal sulcus strong, reaching at least the median part; first dorsal segment very large, deeply impressed at base; metasternum convex in both sexes.

Male: Head nearly as long as broad, very little attenuate in front; frontal part large, rounded, convex, densely punctulate and squamose; eyes larger; there are no other sexual marks, even in the abdomen.

Female: Head a little shorter and more attenuate in front; frontal part truncate, not convex and smooth; antennæ somewhat thicker; elytra broader than long. Length 1.20 mm.

This species is distinct from *R. nasuta* owing to the longitudinal sulcus of the prothorax, which is hardly visible, the much shorter elytra and the shape of the head, especially in the male.

*Hab.* Cape Colony (Constantia, Newlands).

#### RAFFRAYIA SULCATULA.

Oblong, somewhat convex, ferruginous, rufous or testaceous, covered with a pale pubescence, legs and last joints of the antennæ lighter in colour; head large, shorter than broad, sides rounded, attenuate in front, foveæ and sulci very deep, a somewhat geminate and deep impression on the frontal part, and a long carina extending from the neck to the front; eyes very small; antennæ rather elongate and slender, first joint sub-cylindric, second sub-quadrate, longer than broad, third quadrate, smaller than the following one, fourth, the largest, little transverse, fourth to ninth the same form but slightly decreasing, tenth broader and more transverse, eleventh briefly ovate with the apex abruptly conical; prothorax very cordate, sides and anterior margin well rounded together, hardly broader than the head, longitudinal sulcus very feeble but never totally wanting, sides hardly sinuate posteriorly, the transverse sulcus strong, angular in the middle, and the median groove of about the same size as the lateral ones; close to the base are four small grooves; elytra smooth, much longer than broad, and very attenuate at base, no shoulders, dorsal sulcus valid, disappearing before the median part; first dorsal segment large, feebly impressed transversely at base.

Male: Metasternum hardly impressed, intermediate trochanters with a small tooth at their base, last ventral segment strongly sinuate at the apex on the sides and projecting in the middle, hardly impressed.

Female: Metasternum convex, last ventral segment rounded at apex. Length 1.70–1.80 mm.

This species is closely allied to *R. nasuta* and *R. armata*; the male will be very easily distinguished because the inferior part of the head has no sculpture and the frontal part is not produced as in *nasuta*. For the female the colour is the same as in *R. nasuta* and much lighter than in *R. armata*, the antennæ are much more slender than in both these species, the intermediate joints being hardly transverse; the size is larger.

*Hab.* Cape Colony (Newlands, near Cape Town).

## RAFFRAYIA MONTANA.

Elongate, rufous, apex of the antennæ and legs testaceous, pubescence short and fine; head narrower than the prothorax, longer than broad, attenuate in front, and having two grooves and oblique sulci, and a well-defined transverse sulcus cutting in two the antennal tubercles; vertex feebly and shortly carinate; eyes large; antennæ thick, first joint elongate, cylindrical, second quadrate, third to ninth transverse, fourth and fifth the largest, the following ones slightly decreasing in size, tenth a little smaller and less transverse, eleventh very little larger, quadrate at base, abruptly conical at apex; prothorax cordate, about as long as broad, sinuate on the sides behind the middle; lateral foveæ large and somewhat lengthened in a fine longitudinal sulcus, median fovea small, median longitudinal sulcus feeble but never wanting, transverse one strong and angular; elytra a little longer than broad, hardly attenuate at base, with the shoulders oblique, prominent and dentate, dorsal sulcus slender and reaching the median part; first dorsal segment equal to the following one, the transverse impression at base deep, narrower than the third part, and with two short divergent carinules; metasternum more or less sulcate; last ventral segment large, transversely and feebly impressed; intermediate trochanters with a small sharp tooth in the middle. Male.

Female unknown. Length 1.40–1.60 mm.

This species resembles very much both *R. rugosula* and *R. microcephala*; it has, like the latter, a transverse sulcus on the front and a longitudinal sulcus on the prothorax like the first, from which it is also differentiated by the smooth teguments.

*Hab.* Cape Colony (Table Mountain and on the plateau above Muizenberg).

## RAFFRAYIA CAPENSIS.

Elongate, ferruginous or testaceous, legs and last joints of the antennæ rufous, covered with a rather dense pubescence; head much narrower than the prothorax, a little longer than broad, attenuate, and having two large foveæ and oblique sulci on the frontal part, and a deep transverse sulcus at the base of the antennal tubercles, vertex with a very small and short carina; antennæ robust, first joint elongate, cylindrical, and quadrate, a little transverse, third to tenth transverse, decreasing a little in width from the fourth to the tenth, eleventh ovate, abruptly conical at apex; prothorax broader

than long, well rounded on the sides and deeply sinuate after the middle, lateral foveæ large, median one small, longitudinal sulcus entirely wanting, transverse one strong and angular, at the base two large but not deep foveæ; elytra a little longer than broad, not attenuate at base, shoulders oblique, little prominent, dentate, dorsal sulcus strong, and reaching the median part; first dorsal segment not larger than the other, at the base a deep impression much narrower than the third, with two very divergent carinæ; metasternum with a small groove behind.

Male: Intermediate trochanters with a strong but short and blunt tooth at the base, posterior ones simple; last ventral segment very large, with a deep and large oblong groove.

Female: Last ventral segment sinuate at apex, and the last dorsal one with a small tubercle. Length 1.90–2.00 mm.

This species is closely allied to *R. microcephala*, the antennæ are very much alike, but the head is not so small, and is more attenuate in front; the prothorax is broader and more deeply sinuate in the sides; the size is larger, and the sexual characters are very different.

In *R. microcephala* I did not at first notice the presence on the posterior trochanters of a transverse, somewhat oblique, hook-like carinæ, which is very difficult to detect; the intermediate ones are simple; in *R. capensis* it is just the reverse, the intermediate are toothed and the posterior ones are simple.

*Hab.* Cape Colony (Cape Town, Kloof Road).

#### RAFFRAYIA ALGOENSIS.

Elongate, ferruginous, last joint of the antennæ and palpi testaceous, pubescence short and fine, intermixed with long hairs: head longer than broad, very little attenuated in front, between the eyes two deep foveæ and two deep sulci, nearly parallel, frontal part depressed in the middle; antennal tubercles transversely sulcate; the vertex is transversely raised, and close to the neck there is a short carina; antennæ not clavate, first joint elongate, second quadrate, third sub-triangular, fourth to tenth transverse, fifth the largest, eighth the smallest, ninth and tenth about the same size, eleventh hardly broader and abruptly sub-conical at tip; prothorax much broader than the head, about as long as broad, somewhat sharply rounded on the sides at the middle, and sinuated behind by the lateral groove, which is large, slightly attenuate in front, transverse sulcus deep, angular at the middle, longitudinal sulcus entirely

wanting, behind the transverse sulcus the base is convex, with four grooves; elytra broader than the prothorax, longer than broad, shoulders oblique and dentate, dorsal sulcus terminating at the median part, sides hardly rounded; first dorsal segment not larger than the following one, with two very divergent and strong carinules, including about the fourth part of the disk; metasternum longitudinally depressed; intermediate trochanters having at the base a short and recurved spine, posterior ones with a small longitudinal carinule; posterior tibiæ with a small spur; last ventral segment large and transversely depressed. Male. Length 2.10 mm.

This species is closely allied to *R. capensis* and *R. microcephala*. From *R. capensis* it differs by the smaller size, the head less attenuate in front, and the prothorax less deeply sinuated behind the middle. From *R. microcephala* it differs by the head a little attenuated, whilst in *microcephala* the sides are parallel and the head is altogether smaller.

I do not know the female of *R. algoensis*, but I think it must be very similar to the female of *R. microcephala*, and probably very difficult to distinguish. Although the females of these three species are very similar to each other, the identification of the males will not be difficult, a very frequent case in *Pselaphidæ*.

*Hab.* Cape Colony (Port Elizabeth).

#### RAFFRAYIA MYRMECOPHILA,

Plate XVIII., fig. 2.

Sub-elongate, entirely testaceous (one example, perhaps immature), covered with a white pubescence; head small, trapezoidal and transverse, frontal part somewhat depressed in the middle, between the eyes are two deep grooves, and before the front two other ones much smaller and much more closely set, no sulci; vertex carinate; eyes small; antennæ robust, second joint quadrate, third triangular, as long as broad, fourth to eighth very transverse, the fifth is the largest, and from the fifth to eighth the joints decrease in size, ninth is much narrower, transverse, tenth larger, more transverse, eleventh large, briefly ovate with the apex somewhat cone-shaped; prothorax much larger than the head, cordiform, sides rounded and made sinuose after the median part by a very strong lateral fovea, median fovea moderate, transverse sulcus not very deep and very little angular, longitudinal sulcus very faint and only conspicuous in the anterior part of the disk, base with two small foveæ; elytra a little

longer than broad, very little attenuate at base, shoulders dentate, dorsal sulcus wide, reaching the middle; first dorsal segment equal to the following one, the impression at base narrow. Metasternum convex. Length 1.70 mm.

This species resembles *R. rugosula*, but differs by the absence of punctures, the head is much shorter and the cephalic foveæ are free and not connected by sulci; the longitudinal sulcus on the prothorax is exceedingly faint and may prove to be missing in other examples. The male is unknown.

*Hab.* Port Elizabeth.

Found with *Rhoplaomyrmex transversinodis*, Mayr., *in litt.*, a new genus of ant.

RAFFRAYI DILATATA,

Plate XVIII., fig. 1.

Elongate and sub-parallel, more or less darkly piceous-brown, with the elytra brownish red or dark chestnut; antennæ and legs rufous, pubescence small and thin; head hardly longer than broad, attenuate in front, rounded behind the eyes, two small foveæ and two sulci converging in a median depression of the front, a very faint carinula close to the neck; antennæ slender, a little clavate, first joint somewhat short, second quadrate, following ones a trifle smaller, third to seventh quadrate, diminishing, however, in length, eighth a little smaller and transverse, ninth and tenth a little larger and transverse, eleventh larger, ovate, abruptly acuminate; prothorax more than twice wider than the head, a little broader than the elytra, transverse rounded and dilated on the sides, much narrowed behind, transverse sulcus deep, angular and widened in the middle, a faint longitudinal depression on each side and a trace of a median one, base itself with four grooves and a short median carinule; elytra much longer than the prothorax, sides a little rounded, shoulders oblique, well marked and dentate, dorsal stria a little arcuate terminating at the middle; first dorsal segment of the abdomen not larger than the following one with two strong, divergent carinæ, including nearly the third part of the disk; metasternum convex; trochanters simple; fourth ventral segment very transversely depressed, its apical margin sharp, sub-carinate, and provided on each side with a long, thin and recurved spine; last one large, thickly clothed on the sides with a golden pubescence, glabrous and depressed in the middle. Male. Length 2.00 mm.

A very curious species which differs from all the others by its



broad, transverse prothorax, amplified laterally. The female is unknown.

*Hab.* Cape Colony (Port Elizabeth).

RAFFRAYIA NATALENSIS, Raffray,  
Catal., p. 75.

The colour varies much ; the original type of the description above referred was chestnut-red. I have some suspicion that the example was not quite mature, as I have seen lately two other specimens, one from Natal and one from Port Elizabeth (Dr. Brauns), which are more or less piceous-brown, with the elytra red-brown and the legs and antennæ chestnut or rufous, which I think is the normal colouration.

GEN. DALMINA, Raffr.,  
Catal., p. 78.

DALMINA ELIZABETHANA,  
Plate XVIII., fig. 10.  
Catal., p. 121.

When I gave the description of this species, I had only male examples for examination ; since that time I received a good many specimens from Dr. Brauns, including the female, which seems to be far more abundant than the male.

I have nothing to alter in the description of the male referred to.

Female: Darker in colour, chestnut; elytra much shorter, attenuated at the base, with the sides rounded; antennæ with the three first joints as in the male, fourth larger than the third, subquadrate, fifth of the same shape but only a trifle larger, sixth to tenth transverse, a little narrower and slightly decreasing, eleventh as in the male, trochanters and tibiæ simple. Length 1·60–2·10 mm.

In this species the female is somewhat variable in size ; in the large specimens the antennæ are thicker with the joints more transverse.

Compared with the female of *R. concolor* from Natal, there are the same differences in the head as mentioned already for the male, and the antennæ are much thicker with the joints more transverse ; compared with the female of *R. globubicornis* the sixth to eighth joints of the antennæ are smaller. It differs from the female of *R.*

*gratitudinis* (pl. xviii., fig. 9) by the fourth and fifth joints of the antennæ being considerably larger.

According to Dr. Brauns's observations one male has been found with *Fustigerodes auriculatus*, Wasm., in the galleries of *Rhoplaomyrmex transversinodis*, Mayr., and all the other specimens, both male and female, under stones where no ants were met with.

This is a new and clear proof that it may often happen that an insect is found accidentally in ants' nest without being really myrmecophilous. The same case has been often proved for other insects.

*Laphidioderus capensis*, a Pselaphid, was originally discovered by my friend Mr. Péringuey, near Cape Town, inside the deep galleries of an ant, *Bothroponeza pumicata*. I have taken myself a considerable number of the same insect under stones during the winter season, but I never found it in company of ants.

Another small beetle, *Microxenus laticollis*, Woll., is abundant in winter under stones, near Cape Town. I found it several times amongst ants, which did not seem to disturb it in the least, but generally this insect is found under stones where ants are not found. My opinion is that *Microxenus* is not interfered with in the least by the ants, which may come and run their galleries under the stone where it has set. Not only it is not driven away, but it seems quite unconcerned at their presence; it cannot, however, be considered a myrmecophilous insect.

Some heteromorous beetles of the genus *Tentyria*, *Stenosis*, and here, *Psaryphis*, *Aspila*, &c. and others, are often met with ants; their case does not seem to be quite similar to that of *Microxenus*. Those heteromera are very likely fond of the dejections, or vegetable or animal matter accumulated by the ants, and they are attracted to it for feeding purposes; it is more especially amongst the debris which surround the ants' nest that they are to be found.

*Monoplius inflatus* and *M. pinguis* are another case in point. These histeridous beetles feed and breed on and amongst the dejections of ground *Termitinæ* (*Hodotermes havilandi*), but those histeridous insects are not met with in the galleries of the Termite, and they cannot be, therefore, termed *sensu stricto*, termitophilous insects; they must be considered as living in the proximity of *Termes* and feeding exclusively on stercorarious matter produced by the *Termes*.

Quite different is the case of the *Clavigeridæ* and *Paussidæ*, which must be considered as really myrmecophilous, or at any rate myrmecobious. Both live in the very galleries of the ants, and are

not to be met with anywhere else, except sometimes flying at sunset. The *Clavigeridæ* seem to be befriended and adopted by the ants, which derive some benefit from their presence amongst them, and may be really termed myrmecophilous; the *Paussidæ*, on the contrary, feed on the larvæ and pupæ of the ants, and force their presence amongst the ants by strength or intimidation by their voluntary emission of caustic gas, the contact of which appears to be much dreaded by the ants, as I have many times witnessed in Abyssinia with many different species of *Paussidæ* and ants, and more recently at Cape Town with *Paussus lineatus*, Thunb., and *Acantholepis capensis*. Those insects I call myrmecobious.

*Cossyphodes* and *Thorictus* are always found with the ants, either inside the galleries or sticking to the stones covering the ants' nest; but under what conditions they are living amongst ants is a thing which I do not know. If they are not myrmecophilous, they are certainly at any rate myrmecobious.

## TRIBE BRYAXINI.

GEN. REICHENBACHIA, Leach,

Catal., p. 90.

REICHENBACHIA ACHILLIS, C. Schauf.,

Catal., p. 96.

This species varies to a great extent.

I have already mentioned (*loc. cit.*) a female variety from Muizenberg and Cape Town, in which the second and third dorsal segments of the abdomen are sharply spinose, whilst in the types the second dorsal segment alone is sharply mucronate. I have now another variety sent to me from Port Elizabeth by Dr. Brauns, which I name *inferior*, and both the male and female of which differ from the type by the size, a trifle smaller, a lighter-coloured body, and especially the antennæ, which are rufous instead of brown, and also by a lesser development of all the organs.

Male: The second ventral segment, has a large but not deep triangular depression, on the third and fourth there is a small transverse depression, on the last one a large but not deep rugosopunctate depression, with a smooth patch in the centre; intermediate femora not quite so thick; metasternum not so strongly impressed; the spurs of the fore and intermediate tibiæ are as in type. Length 1.70 mm.

Female: Second dorsal segment, instead of being sharply mucronate as in the type, is simply provided in the middle of the posterior margin with a blunt and faint tubercle. Length 1.50–1.60.

One female specimen is much smaller (length 1.35 mm.), and altogether piceous; the body is more elongate than is generally the case in the females; the antennæ are rufous, shorter and thicker, and there is a very faint and blunt tubercle at the apex of the second dorsal segment.

There are thus in this species two different forms of the male and three different forms of the female, which are nothing else but local varieties more or less developed.

*R. achillis* type, male: excavations of the ventral segments of the abdomen very deep. Muizenberg and Stellenbosch.

*R. achillis* type, female: second dorsal segment of the abdomen sharply mucronate. Found exclusively at Stellenbosch.

Var. *bimucromata*, female: first dorsal segment of the abdomen sometimes with a very faint, sharp tubercle, second and third dorsal segments sharply spinose. Found at Muizenberg and Cape Town, together with the male type.

Var. *inferior*, female and male: size a trifle smaller, antennæ rufous; ventral segments of the abdomen in the male with superficial impressions; the second dorsal segment in the female having simply a blunt and small tubercle.

*Hab.* Cape Colony (Port Elizabeth).

Such variations are very interesting, more especially the presence of two different forms of females with one form of male.

REICHENBACHIA ZAMBESIANA, Raffr.,

*Reichenbachia decipiens*, Raffray,

Catal., p. 92.

The name *R. decipiens* having been previously given to a species of the same genus, I propose to change it in *Reichenbachia Zambesiana*.

REICHENBACHIA SULCICORNIS, Raffray,

Catal., p. 90.

This species varies to a certain extent in size and in colour.

The colour may be ferruginous or chestnut, with the last joints of the antennæ more or less piceous, or piceous with the elytra red

brown and the antennæ entirely piceous. The last joint of the antennæ in the male is also variable; it may be oblong, with a sulci-form fovea or ovate and acuminate, with a much shorter fovea. Generally the last joint of the antennæ is shorter when the body is of a smaller size. Length 1·40–2·00 mm.

This species is recorded now from Bechuanaland (Vryburg), Mashunaland (Salisbury), Natal, Cape Colony (Port Elizabeth and Uitenhage).

REICHENBACHIA RIVULARIS, Raffray,  
Catal., p. 129.

When I first described this species I had only one male specimen. I have received it since in large numbers from the Rev. O'Neil, from Uitenhage, and I am able to complete the description. It varies in colour, from rufous to dark chestnut; the carinules on the first dorsal segment of the abdomen are more or less distant, including from one-fifth to more than one-fourth of the disk. In the female the antennæ are somewhat shorter with all the joints a little shorter, and the eighth is decidedly transverse, the eleventh is smaller; the tibiæ have no spurs, and the tubercle at the base of the metasternum is smaller. Length 1·40–1·80 mm.

BRYAXONOMA, nov. gen. .

Body stout, convex, attenuate in front; head, prothorax, and elytra entirely devoid of any fovea, sulcus, or stria; antennæ and palpi as in *Reichenbachia*; head beneath, with a strong longitudinal carina and somewhat depressed in the sides, in front of the eyes; elytra short, attenuate towards the base, no shoulders; abdomen large, margin rather narrow; first dorsal segment larger than the elytra, and without any impression; metasternum short and transverse; posterior coxæ very distant; second ventral segment very large; tarsi rather elongate, second joint sub-conical, third cylindrical and more slender; a very minute single claw.

This new genus, which belongs to the tribe of *Bryaxini*, differs much from *Reichenbachia* in general appearance, which is due to the shortness of the elytra, the very large dorsal segment of the abdomen, and the total absence of foveæ, sulcus, or stria.

## BRYAXONOMA FILICEUM,

## Plate XVIII., fig. 15.

Piceous, chestnut, rufous, or testaceous; palpi testaceous; legs always lighter in colour than the body; entirely covered above and beneath with a strong but rather distant punctuation, each puncture bearing a short and depressed seta; head not much convex, trapezoid, as long as broad, attenuate in front, with the sides oblique; eyes situated behind the median part of the head; antennæ having the two first joints much larger than the following ones: first sub-square, second sub-cylindrical, longer than broad, third obconical, fourth to sixth sub-cylindrical, longer than broad, fifth somewhat larger, seventh square, eighth a little smaller and very little transverse, ninth much larger and transverse, tenth nearly double and very transverse, eleventh big, briefly ovate and acuminate; prothorax convex, a little broader than the head, a little transverse, equally attenuate in front and behind, sides rounded; elytra transverse, much broader at the apex than long, much attenuate towards the base, sides hardly rounded, a little sinuate at the external apical angle; first dorsal segment a little longer than the elytra, the following ones narrow; legs rather long; tibiæ hardly increased, but a little sinuate. Length 1.30 mm.

I have both sexes on which the penis and oviduct respectively are distinctly protruding, and yet I am unable to find any external sexual difference.

*Hab.* Found in roots of ferns growing along the walls of the mountain. Muizenberg, Cape Colony.

## TRIBE PSELAPHINI.

## GEN. PSELAPHOXYIS, Raffray,

Rev. d'Ent., vol. ix., p. 137, 1890.

Oblong, much attenuate in front; head elongate, sulcate in the anterior part; maxillary palpi strong, first joint long, filiform, second shorter than the first one, conical, third small, transverse, fourth longer than the two first ones put together, fusiform, strongly papillose; antennæ strong, club tri-articulate; prothorax oblong; elytra much attenuated towards the base, amplified behind; first dorsal segment very large, sub-triangular at the apex, with the sides broadly marginate, following ones small, immarginate, depressed, last one

flat; first ventral segment hidden by a whitish glandular pubescence, second very large, third almost invisible, fourth and fifth visible on the sides only, sixth trapezoidal, depressed, surrounded laterally and behind by the last dorsal segment, which is conspicuous underneath as if it were part of the ventral segment; legs rather stout, one single claw to the tarsi; underneath the neck is covered with a thick, whitish glandular pubescence.

This genus, which belongs to the tribe of the *Pselaphinini*, is very closely allied to the genus *Pselaphus*, from which it differs chiefly by the maxillary palpi, which are much shorter, and the peculiar construction of the last ventral segments. It resembles very much the genus *Pselaphopterus*, Reitt., from Turcomania, but in the latter the last joint of the maxillary palpi is not papillose, and the last segments of the abdomen have a normal structure. From *Pselaphophus*, Raffr., which is a genus exclusively Australian, it differs by the maxillary palpi less elongate, the head narrower, the prothorax oblong, whilst it is cordiform in *Pselaphophus*.

When I first established this genus (*loc. cit.*), I considered it as being a mere sub-genus of *Pselaphus*, as well as *Pselaphophus*, but after further examination of a large number of examples, I do not hesitate to consider both as very distinct and valid genera.

The only species belonging to *Pselaphoxys* has been discovered in Abyssinia (*P. delicatulus*, Raffr.). I have just received from the Rev. O'Neil from Uitenhage two specimens which prove to be specifically identical with the Abyssinian insect, with, however, a slight difference, consisting in the colour of the setæ fringing the posterior margin of the elytra. In the Abyssinian examples such setæ are yellow, in the South African ones they are black; but I do not think that such a trifling difference should be considered a specific one, and am of opinion that both the examples from Abyssinia and South Africa belong to the same species.

PSELAPHOXYS DELICATULUS, Raffray,

Plate XVIII., figs. 16, 17, and 18.

Rev. d'Ent., 1882, p. 14.

Oblong, much attenuate in front, sanguineo-rufous, smooth and shining with some short whitish setæ; antennæ and legs rufous; head long, linear from the middle to the frontal part and sulcate, enlarged in front for the insertion of the antennæ, vertex much broader and convex; antennæ stout, first joint sub-cylindrical,

second oblong, the others moniliform, ninth to tenth a little larger, sub-globose, eleventh large ovate, acuminate; prothorax oblong, as much attenuate in front as behind; elytra very much attenuate towards the base with the shoulders very oblique, a sutural stria and another dorsal stria a little arcuate, posterior margin with strong, thick and black setæ forming a brush close to the sutural angle; abdomen shorter than the elytra, first dorsal segment very large, flat, sub-triangular behind with the apex truncate, the following ones small, depressed, and altogether triangular; legs strong with the femora inflated. Length 1·70–1·90 mm.

Two examples. Sex uncertain.

*Hab.* Cape Colony (Uitenhage).

### TRIBE CTENISTINI.

GEN. SOGNORUS, Reitter,

Verh. Naturf. Ver. Brünn., xx., p. 202.

Entirely similar to the genus *Ctenistes*, and differs only by the antennæ, which are similar in both sexes; in the male the joints 3–7 are never lenticular, and the club is not formed by four very long and cylindrical joints as is the case with *Ctenistes*, but the antennæ in the males of *Sognorus* are similar to the antennæ of the females of the latter.

I confess that such a generic character is not of very great importance; in all the species known hitherto the body is shorter and stouter, and the facies really different, but in the new species here described the body has exactly the same facies as in *Ctenistes*, and the unique specimen is unquestionably a male with the antennæ of a female. This new species, which forms a transition between *Sognorus* and *Ctenistes* would lead to the conclusion that both those genera are synonymous, which conclusion will very likely be proved by further discoveries.

This genus includes all the species of North America recorded as *Ctenistes*, some Asiatic species, a European one, one from the West Coast of Africa (*simonis*, Reitter), and a new species from South Africa.

When I referred to this genus in 'Revue d'Entomologie,' 1890, p. 143, I said that it included also the Australian species. This is an error; the Australian species will form a new genus (*Ctenisophus*, Raffr.) on account of the presence of a strong infra-ocular spine which is not found in *Ctenistes* or *Sognorus*.



## SOGNORUS O'NEILI,

Plate XVIII., fig. 26.

Oblong, fulvous, the squamæ are pale, fine and scattered, except on each side of the neck, at the posterior angles of the prothorax, in the posterior margins of the elytra and of the two first dorsal segments of the abdomen where they are thick and glandular; head long, a little angustate in front, between the eyes two punctures much more removed from each other than from the eyes, and in the middle a very obsolete oblong impression, in front a longitudinal sulcus extending on the antennal tubercle; eyes very large; palpi large, second joint thick and curved, third transversely pyriform, fourth transversely fusiform, those three joints produced and penicillated outwards; antennæ long, first to second joints quadrate, large, third longer, obconical, fourth to sixth ovate, longer than broad and increasing slightly in thickness, seventh to eighth a little longer, sub-cylindrical, ninth one-third longer than the preceding one, tenth hardly longer but thicker, eleventh one-third longer than the tenth, sub-cylindrical, obtusely acuminate at apex; prothorax longer than broad, sub-obconical, in the middle of the base a longitudinal impression covered with glandular pubescence; elytra much longer than broad, a little attenuate towards the base, shoulders obliquely rounded, sides nearly straight, at the base two strong foveæ, one sutural stria complete and a dorsal one disappearing behind the middle; first dorsal segment of the abdomen short, second twice as long; metasternum deeply and entirely sulcate, second ventral segment with the posterior margin a little raised and with an arcuate sinuation in the middle, altogether clothed with glandular pubescence, thin, flattened in the middle; legs long; tibiæ straight, thickened towards the apex and glabrous. Length 1.90 mm.

This species cannot be compared with *S. simonis*, Reitt., from West Africa, which is much smaller and much stouter; it resembles more the female of *Utenistes imitator*, Reitt., but the antennæ are much thicker, and the sex of the unique specimen I have of this species is certainly a male, judging from the under side of the abdomen.

*Hab.* Cape Colony (Uitenhage).

## GEN. CTENISTES, Reichenb.,

Catal., p. 103.

CTENISTES BRAUNSI,

Plate XVIII., fig 25.

Elongate and sub-parallel, body sparsely covered with thin ochraceous squamæ; head pyriform, rather convex, tri-foveate, antennal tubercle large and a little transverse, third joint of palpi stout, transverse, fourth sub-fusiform, slender, very transverse, appendages of moderate size; antennæ rather short and thick; prothorax a little transverse, not much narrowed in front, sides very little rounded, a short median fovea at base; elytra much longer than the prothorax and longer than broad, sides nearly parallel, dorsal stria very little arcuate; abdomen as long as the elytra, not broader, sides nearly parallel, second dorsal larger than the first, all the tibiæ straight, thickened and a little curved at the apex; metasternum sulcate.

Male: More parallel; elytra longer, shoulders more oblique and prominent; second dorsal segment only slightly longer than the first; first and second joints of antennæ larger than the others, quadrate, third obconical, longer than broad, fourth to seventh a little transverse, eighth hardly as long as the four preceding ones put together, cylindrical, ninth shorter than eighth, tenth as long as eighth but thicker towards the apex, eleventh not longer but thicker than tenth, and obtusely acuminate; metasternum more deeply sulcate; posterior tibiæ longer, somewhat angulate before the apex which is much thicker; tarsi, more especially the anterior ones, longer and more slender.

Female: Elytra a little shorter, somewhat attenuate at base with the shoulders less prominent; second dorsal segment much longer than the first; first and second joints of antennæ similar to those of the male, following ones thicker, second obconical, third to seventh nearly as long as broad, eighth a little broader, transverse, ninth larger, sub-quadrate, tenth still larger, sub-quadrate, eleventh nearly as long as the two preceding ones and obtusely acuminate; tarsi, more especially the anterior ones, short and thick. Length 2.10 mm.

This species differs very much from *C. australis*, Raffr., and *C. imitator*, Reitt., owing to the more parallel and elongate body and much thicker and shorter antennæ, the third to seventh joints of which are hardly transverse and the club is much shorter.

*Hab.* Cape Colony (Port Elizabeth).

Dr. Brauns found this species with a new genus of ants, *Rhoplaomyrmex transversinodis*, Mayr., *in litt.*

## TRIBE TYRINI.

GEN. CENTROPHTHALMUS, Schm.,

Bestr. Mon. ; Psel. Prag., 1838, p. 7.

CAMALDUS Fairm.

Body oblong, little convex ; head small, triangular, with a frontal tubercle ; eyes very large with an infra-ocular spine ; antennæ long and strong with a distinct club, approximate at base ; palpi with the first joint inconspicuous, second elongate and clavate at the apex, third large, compressed, more or less triangular, elongate, obliquely truncate at apex, fourth much smaller, inserted at the inner angle of the third, aculeate, very sharp at the tip which is devoid of the usual appendage ; prothorax more or less ovate ; elytra large with a fine sutural stria and a more or less diffused and short discoidal sulcus ; abdomen with a broad margin, rather short and depressed, the first dorsal segment much shorter than the following one, the two first bearing generally two longitudinal carinæ ; all the trochanters, and more especially the intermediate ones, elongate with the insertion of the femur terminal, intermediate and posterior coxæ approximate ; first ventral segment short and more or less concealed under the coxæ, third larger than the others ; legs long and robust, tarsi elongate with two strong and equal claws.

The peculiar construction of the palpi being unique in the family will at once facilitate its identification. The genus is largely represented in Asia and in both the East and West Coasts of Africa. It extends north as far as Algeria, but it had not yet been recorded from South Africa, and the discovery of this genus in Mashunaland and in the southern part of the Colony proves once more that such countries belong to the general fauna of Africa, from which the rather isolated fauna of the Cape peninsula stands isolated.

CENTROPHTHALMUS MARSHALLI,

Plate XVIII., figs. 20 and 21.

Oblong sub-depressed, obscure rufous, elytra brighter and redder,

antennæ and legs more testaceous, pubescence long, rufous; head longer than broad, sides rounded, much attenuate in front, three equal foveæ, the posterior ones situated a little in front of the centre of the eyes, antennal tubercle nearly as long as broad, feebly sulcate, the infra-ocular spine long, sharp and straight; palpi testaceous and with erect setæ, the third joint long, not very broad, very obliquely truncate at apex with the external angle sharp, fourth rather long, sharply aculeate; antennæ long and slender, first joint cylindrical, longer than the two following ones put together but hardly thicker, second sub-quadrate, following ones a little more slender, third hardly longer than the second, third to seventh increasing a little in length, eighth nearly twice as long as seventh but hardly thicker, ninth to tenth of the same length, a little stouter, eleventh nearly three times as long as tenth, thickening from the base to the third anterior part and then attenuate and obtuse at apex; prothorax as broad as the head and eyes included, regularly ovate, lateral foveæ strong, median one antibasal, smaller than the others; elytra little convex and little narrowed towards the base with the shoulders rounded, much longer than broad, discoidal sulcus short and inconspicuous; abdomen shorter than the elytra, sub-depressed, first dorsal segment shorter by one-half than the following one; the carinæ are situated close to the sides and reach only the middle of the second segment; metasternum hardly sulcate; anterior femora thickened, tibiæ thickened in the middle, arcuate and a little sinuate, intermediate and posterior ones nearly straight; no sexual marks, but the unique specimen is very likely a male, judging from the long four-jointed club. Length 2.30 mm.

I do not know any other African species with such long and slender antennæ.

*Hab.* Zambesia (Salisbury).

#### CENTROPHTHALMUS BREVISPIÑA,

Plate XVIII., fig. 22.

Oblong, rufous or castaneo-rufous, pubescence long and fine, erect, yellow; head a little longer than broad, much attenuate in front, two small foveæ between the eyes and in front a longitudinal sulcus extending over the antennal tubercle; the infra-ocular spine is very small, and reduced to a thin and sharp tubercle; palpi testaceous with long, erect, whitish setæ; the third joint obconical, a little arcuate with a slightly oblique truncature at the apex, fourth

inserted at about the middle of the truncature, short, thick at the base, rather abruptly aculeate at apex; antennæ stout, first joint sub-cylindrical, second quadrate, both larger, third to sixth moniliform and a little transverse, seventh not broader but quadrate, eighth to ninth larger, tenth sub-quadrate, slightly increasing, eleventh large, briefly ovate, truncate at the base, rounded at the apex; prothorax a little longer than broad, more attenuate in front than at the base, rounded on the sides, lateral foveæ small, median one larger; elytra with the posterior margin darker, longer than broad, a little attenuate towards the base with the shoulders oblique and little marked, two foveæ at base, the external one large and elongated in a broad but short sulcus; first dorsal segment of the abdomen short, entirely bi-carinate, second more than twice as long as the first one; the two carinæ are nearly complete; metasternum convex, and with a fine stria; all the femora, more especially the anterior ones, thickened, anterior tibiæ much thickened in the middle, arcuate, intermediate ones a little thickened towards the apex and a little curved, posterior ones straight; no sexual mark. Length 1.80 mm.

This species, compared with the preceding one, differs at first sight by the much shorter and much thicker antennæ. In that respect it resembles very much *C. armatus*, Raffr., from Abyssinia, but in this species the infra-ocular spine is long and sharp, and the two carinæ on the second dorsal segment do not extend as far as the middle of the disk, whilst they are nearly entire in *C. brevispina*. Another African species, *C. villosulus*, Fairm., from Algeria, has the infra-ocular spine very small, but the joints of the antennal club are much longer.

Two examples. Female.

*Hab.* Cape Colony (Uitenhage).

GEN. PSELAPHOCERUS, Raffray,

Catal., p. 109.

PSELAPHOCERUS AMICUS,

Plate XVIII., figs. 13, 14.

Resembles much *P. peringueyi*, Raffr., but the head is longer, narrower, not at all attenuate in front, with the sides parallel; the hairs are darker, being black, except on the posterior margin of the elytra; the palpi are very much alike, the last joint being,

however, more rounded externally, but the antennæ are very different.

Male: Antennæ long, first joint cylindrical, elongate, and punctate, second a little longer than broad, second to sixth the same shape and width, but increasing in length so that the sixth is nearly a third longer than the second, seventh about the same length as sixth, obconical and truncate at both ends, but the apex is very obliquely truncate, eighth the same width as sixth, transverse, ninth about twice the size of eighth, lenticular, tenth still larger, irregularly lenticular, with the under part largely foveated, eleventh large, very briefly ovate, with the under part largely excavate, the excavation transverse near the base, longitudinal on the inner side, and with a long brush of hairs before the apex; anterior trochanters with a blunt tubercle, absent on the femora, shoulders oblique, well defined. Length 3·10 mm.

Female: Antennæ a little shorter, second joint nearly square, third to fifth a little increasing in length, fifth somewhat conical, sixth shorter, seventh equal to sixth in length but sub-conical and broader at apex, eighth transverse, ninth much larger, lenticular, tenth similar to ninth, but a little larger, eleventh briefly ovate; elytra much attenuated at base, no shoulders, tubercles of the anterior, trochanters much stronger, a small tubercle on the femora of the same legs. Length 2·80–3·00 mm.

This species belongs to the first group of the genus owing to the shape of the palpi, but the seventh joint of the antennæ is much less dilated than in *P. peringueyi* and *P. diversus*, with the eighth much larger, consequently the antennæ is perfectly straight, whilst it appears somewhat angulate in these two species.

*Hab.* Cape Colony (Stellenbosch and Newlands).

In the descriptions of *P. peringueyi* and *P. diversus* I omitted to mention that in the male the shoulders are oblique and well marked, and wanting in the female.

PSELAPHOCERUS ACUTISPINA,

Plate XVIII., figs. 11, 12.

Stout and attenuate in front; piceous with the elytra dark red, the antennæ and legs ferruginous, or entirely flavous (presumably immature), pubescence long, dark, and mixed with fulvous hairs, palpi testaceous. Head long, narrow, a little attenuate in front, somewhat transversely depressed in front with the antennal tubercle

obsoletely divided; between the eyes are two foveæ more distant from each other than from the edge; three last joints of the palpi triangular, narrowly and sharply produced outwardly in the shape of a fine appendage, the last one a little transverse; antennæ rather elongate, very different in both sexes; prothorax larger than the head, rather abruptly narrowed in front, dilated and rounded before the middle, at the median part of the sides a very transverse and sulciform fovea, clothed with whitish and glandular hairs; elytra attenuate at base with two foveæ, and a short, wide dorsal sulcus; in the anterior legs the trochanters have a very long and sharp spine and the femora a shorter, sharp spine; metasternum very little impressed.

Male: First joint of antennæ long, cylindrical, second to fifth very nearly equal to each other, longer than broad, sixth the same width, but more than half shorter, transverse, seventh very large, irregularly trapezoidal, larger at the apex where the margin is sinuate and obtusely dentate, eighth inserted at the inner angle of the preceding one, similar to the sixth but smaller, ninth not broader, much less transverse, tenth hardly longer than ninth, but three times broader, very transverse and produced externally, eleventh large, irregularly ovoid, the under part bearing a large, transverse, but not deep fovea; the spine of the trochanters is shorter, the one on the femora smaller and slender, the shoulders more angulate and prominent. Length 2.60 mm.

Female: Second, third, and fourth joints of antennæ very nearly equal to each other and a little longer than broad, fifth a good deal longer, sixth sub-quadrate, a little transverse, seventh longer and a little stouter than fifth, a little produced at the inner apical angle, eighth very transverse, ninth and tenth larger, transverse, eleventh oval; shoulders much less prominent, but still not entirely absent. Length 2.30 mm.

This species is very interesting inasmuch that by the conformation of the palpi it belongs to the second group, and by the antennæ to the first group of the genus, being a transitory form.

*Hab.* Cape Colony (Port Elizabeth, Uitenhage).

## SUB-FAMILY CLAVIGERIDÆ.

GEN. FUSTIGERODES, Raffray,  
Catal., p. 117.

FUSTIGERODES AURICULATUS, Wasm,  
Wien. Ent. Zeits., xvii., 1898, p. 98.

This species is very closely allied to *F. majusculus*, Pér.; the body is not so broad, and is more parallel, the colour is a little lighter, the head and the prothorax are more elongate, and the punctuation much less strong; the last joint of the antennæ is longer, thinner, and a little curvate; but the main difference is found in the abdominal processes; in *F. majusculus* these processes are flattened on the upper part and strongly carinate in each side; in *F. auriculatus* they are much more prominent, the upper part is rounded, convex, punctate and piliferous without any trace of carinule; the triangular tooth of the intermediate femora is a trifle smaller, and the tubercle placed before the apex inside the tibiæ of the same legs is not so strong, the size is also a little smaller. Length 2·10 mm. In his description the Rev. S. Wasmann gives 2·3 mm. as the size; very likely his typical specimen is a trifle larger than mine.

It differs from *F. capensis*, Pér., by the more elongated body, the colour much lighter, the head shorter and more parallel, the prothorax more cordate and not so much rounded, the more slender and much more regularly conical terminal joint of the antennæ, the more elongate elytra, and the form of the processes of the abdomen which are similar in both *F. majusculus* and *F. capensis*; the basal depression of the abdomen is also much larger in *F. auriculatus* than in *F. capensis*.

This interesting species described (*loc. cit.*) by the Rev. S. Wasmann has been discovered by Dr. Brauns in Port Elizabeth amongst the ant *Rhoplaomyrmex transversinodis*, Mayr. *in litt.* I have not seen type, but Dr. Brauns has kindly given me a male specimen which I have no doubt belongs to the same species as the one described by the Rev. S. Wasmann.



## ADDITION.

## REICHENBACHIA O'NEILI, n. sp.

Amongst the specimens of *R. rivularis* which the Rev. J. A. O'Neil sent me from Uitenhage, I noticed one or two specimens lighter in colour and differing in some respects from the type, but I considered them first as a mere variety. However, I drew the attention of the Rev. J. A. O'Neil to this fact, and later on he kindly sent me another lot of *Reichenbachia* collected together, and containing no less than 225 examples, including *R. sulcicornis*, Raffr., *R. rivularis*, Raffr., and what I considered at the time to be a variety of *rivularis*, but which I have now to consider a distinct species.

It is rather curious to note that out of 225 specimens collected together 75 proved to be *sulcicornis*, 130 *rivularis*, and 20 the new species which I name after its captor.

*R. o'neili* being of the same size and the same shape as *R. rivularis*, a comparative description will prove useful:—

*rivularis*, Raffr.

Antennæ: joints eight and nine a little longer than broad, tenth as long as broad, eleventh oblongo-ovate.

Carinules of the first dorsal segment of the abdomen rather short and generally very divergent, including in width from one-fifth to little more than one-fourth of the disk.

Metasternum bearing, close to the intermediate coxæ, a large and blunt tubercle.

Last ventral segment of the male with a faint impression.

*o'neili*, n. sp.

General coloration very much the same, but always lighter.

Antennæ: joints eight, nine and ten transverse, eleventh briefly ovate, thick.

Carinules of the first dorsal segment of the abdomen generally more elongate and less divergent, including in width from one-seventh to one-sixth of the disk.

Metasternum without tubercle close to the intermediate coxæ, from which it is divided by a transverse groove.

Last ventral segment of the male without any trace of impression.

## ODONTALGUS LONGICORNIS.

This new species is very closely allied to *O. vespertinus*, Raffr. (see Catal., p. 105), and differs by the following points:—

Colour a little lighter, being ferruginous with the disk of the elytra more or less reddish; head much more constricted in front, which makes the antennal tubercle appear much more prominent; antennæ more slender and more elongate in both sexes; dorsal segments of the abdomen neither carinate nor tuberculate on the apical edge.

Male: Antennæ—joints first and second larger than the following ones, second a little longer than broad, third longer than second, obconical, four to seven decreasing in length, so that the fourth is a little shorter than the third, seventh quadrate, eighth very transverse, ninth cylindrical, as long as the three preceding ones, broader, tenth cylindric, a trifle shorter and thicker, eleventh sub-cylindric, much longer and thicker than ninth, obtuse at tip; metasternum simply longitudinally sulcated, this sulcus filled up with whitish glandular pubescence, on each side, about at the middle, a short and carinate tubercle; ventral segments hardly longitudinally impressed.

Female: Antennæ—joints three to seven longer than in the male, the seventh being longer than broad, eighth but little transverse, ninth little larger, quadrate, tenth nearly twice larger than ninth, quadrate, eleventh nearly as long as the two preceding ones, broader, sub-cylindric, somewhat rounded at the base, obtuse at tip.

This species resembles more *tuberculatus*, Raffr., from Abyssinia, than *vespertinus*, but the colour is a little darker, the club of the antennæ in the male is much longer, and the longitudinal channel of the metasternum is complete and simple, whilst in *tuberculatus* it is divided in two parts by a transverse carina.

*Hab.* Cape Colony (Uitenhage).

## PSELAPHOCERUS NODICORNIS, n. sp.

Ferruginous, disk of the elytra reddish, palpi testaceous, with a dense, long and rufous pubescence; head about twice longer than broad, hardly narrowed in front, the anterior edge is a little depressed in the middle, between the eyes, on the front part are two large grooves; eyes very large, situated beyond the middle; first joint of maxillary palpi rather long and conspicuous, cylindrical, second strongly and triangularly enlarged from the base to the apex, the external side rounded, and the external angle bearing on the upper

surface a round impression, third of about the same size and the same shape, but with the external angle obtusely produced and the upper surface nearly totally impressed, fourth irregularly ovate, inner margin nearly straight, outer one rounded, sharply acuminate at tip, entirely impressed on the upper surface; antennæ short and stout, first joint cylindrical, not very long, second quadrate, both a little broader than the following ones, third as long as broad, fourth little transverse, fifth very large, longer than the three preceding ones together, ovate, somewhat compressed inside, finely reticulated, sixth small, very transverse, seventh about twice as large as the sixth, transverse, eighth similar to sixth, ninth and tenth much wider than seventh, lenticular, eleventh briefly ovate, truncate at the base, obtuse at apex; prothorax longer and broader than the head, rather abruptly constricted in front, two large and transverse foveæ filled up with whitish glandular pubescence; elytra long, attenuated at the base, shoulders oblique and little marked, at the base two strong foveæ filled up with whitish glandular pubescence, dorsal sulcus disappearing before the median part; anterior trochanters a little swollen and the femora with a small and blunt inner tubercle about the middle. Male. Length 2.50 mm.

According to the shape of the palpi, which have no thin and long appendages, this species should be included in the first group of the genus, but it is very different from every other. Whilst in all the other species of *Pselaphocerus* hitherto known the seventh joint of the antennæ is the largest of all, in *P. nodicornis* it is the fifth one.

Female unknown.

*Hab.* Cape Colony (Uitenhage).

#### CENTROPHTHALMUS BREVISPINA, Raffr.

(Vide supra, p. 408.)

The above description refers only to the female. Since then I received the male of this insect, which does not seem to be very rare at Uitenhage.

Male: Antennal club much longer, joints eight to ten, ovate, longer than broad, sub-equal, tenth however a little thicker at the apex, eleventh much larger, ovate, rather elongate and obtusely acuminate at apex.

PLATE XVIII.

1. *Raffrayia dilatata*, n. sp.
2. „ *myrmecophila*, n. sp.
3. „ *frontalis*, n. sp.
4. *Euplectus tuberculiceps*, n. sp.
5. „ „ last ventral segment ♂.
6. *Gabata semipunctata*, n. sp.
7. „ „ last ventral segment ♂.
8. *Dalmina globulicornis*, Raffr., antennæ, ♂.
9. „ *clizabethana*, Raffr., „ ♂.
10. „ *gratitudinis*, Raffr., „ ♂.
11. *Pselaphocerus acutispina*, n. sp., antennæ, ♂.
12. „ „ maxillary palpus.
13. „ *amicus*, n. sp., antennæ, ♂.
14. „ „ maxillary palpus.
15. *Bryaxonoma filicium*, n. sp.
16. *Pselaphoxys delicatulus*, Raffr.
17. „ „ maxillary palpus.
18. „ „ last abdominal segments.
19. *Pselaphus longiceps*, Raffr., „ „ „
20. *Centroplthalmus marshalli*, n. sp.
21. „ „ maxillary palpus.
22. „ *brevispina*, n. sp., maxillary palpus.
23. *Trimiodytes cephalotes*, n. sp., head ♂.
24. „ *setifer*, Raffr., „
25. *Ctenistes Braunsi*, n. sp., antennæ, ♂.
26. *Sognorus o'neili*, n. sp., antennæ, ♂.